A Survey and Analysis of the Use of Public Transportation for Fans Attending Portland Trailblazer Basketball Games

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The Portland Trailblazers are the only major professional sports team in the City of Portland. In fact, the next closest major professional teams are located in Seattle which is nearly 150 miles away and in a different state. This has created a large and isolated fan base that is extremely loyal and committed to it's franchise. With only 44 home games each year, the games are repeatedly sold out days in advance. As a new Portland resident, I had heard about the dedication of Portland Trailblazer fans before, but when moving here it was still great to see it firsthand. Since it is the only major sport in the city, the Blazers truly become a topic of conversation at the water cooler. You can talk about the games almost anywhere you go, as it seems the whole city follows the results. But, is there a similar dynamic to how people get to the games? Does the majority of the city get to the games using the same type of transportation? How does the type of transportation used effect how fans experience the games? I tried to answer some of these questions by conducting a survey on November 19th, 2008 when the Blazers took on the Chicago Bulls at Rose Garden Arena.

Before conducting the survey, it was important for me to understand what a survey would tell me, and what kind of survey would help me get the information I was looking for. Doing this research raised a lot of questions. The first of which was what kind of questions should the survey ask? There are typically two kinds of questions, open-ended questions and close-ended questions. While close-ended questions (multiple choice, yes or no, true or false, etc…) can be administered with great ease, I decided it would be necessary to use open-ended questions for my survey so that those being surveyed would have the opportunity to give me additional information.

It was now time to start formulating my survey questions. After doing some research I learned a few tips on how to do this. First of all, it was important to not ask too many questions. By keeping the number of questions short, it would be easier to get people to take the survey and to answer the questions with honest responses. In addition, it was important to organize the survey questions. By placing the questions in a sensible order, you keep the responders interested and give them an idea of the purpose of the survey. Tips for ordering the questions include; ordering the questions chronologically; ordering the questions in terms of relevance; and putting easier questions at the end of the survey. By doing all these things, and avoiding questions that ask the same things, you increase your chances of getting accurate and truthful responses.

The next step in preparing the survey was deciding how to administer it. Although there were numerous options, I decided that the survey should be administered in the form of individual interviews, with the interviewers recording the responses themselves. Doing some additional research I learned a few tips that could help me in the interviewing process. What I learned was that the people asking the questions needed to be trained in order to ask the questions in a similar manner. They would first need to introduce themselves and then introduce the research behind the survey. The interviewers should also dress to fit in with the respondents, and make sure to ask the questions clearly and without showing bias. Another tip for the interviewers is to avoid asking the surveys to groups, because groups of people tend to persuade each other and you want to keep the results as consistent as possible.

Now that I had decided what kind of questions I wanted to ask, and how to ask them, I had to decide who I wanted to ask them to. What type of sampling did I want to test to get the most accurate results for my survey? There are several different types of ways to choose a sample for a survey. The most common types of samples are random samples, but in order to use one of these sample types you need to be able to choose people entirely at random. Often times random samples require significant resources and funds to administer, because they require everyone attending the game to have an equal chance of being surveyed. Essentially, a list of all the people in attendance would be needed, so responders could be chosen completely randomly and without bias. Since this was obviously not possible, I had to choose a different type of sample. The only reasonable option was choosing what is called a "convenience sample". This type of sampling is as simple as just getting surveys from people willing to take them. Unfortunately, this type of sampling is not always as accurate as other types of sampling. Convenience samples often have several sources of biases, and can often be unconvincing without supporting proof of the results. Biases common with convenience sampling include; those willing to be sampled could be systematically different than people who are unwilling; the timing in which the survey was conducted could result in bias; those willing to take the survey may be only doing so to voice a complaint; and those willing to take the survey may differ based on the amount of free time they have.

This leads us to sampling error. Survey results typically follow the normal curve, meaning the larger the sample taken, the more accurate the results will be. With large populations, such as a professional basketball game, it is important to have a reasonable sample

size in order to have confidence in the results. In order to get as many interviews taken as possible, we had three different interviewers at the game. With the game starting at 7:30 pm, the three interviewers were able to collect 40 surveys in the hour leading up to tip off. Once inside the stadium 10 more interviews were recorded totaling 50 survey responses. The attendance of the Blazers vs. Bulls game on November 19th was 20,599[1]. The 50 responses out of a population of 20,599 gives the survey results a 90% confidence with just over a 10% margin of error.[2] Still, before we can put too much weight on these results, it is important to think about what variables may have played a factor.

In addition to the biases mentioned earlier as part of convenience sampling, there are a few other variable that may have an unknown affect on the survey results. Since Rose Garden Arena is large, some bias may have occurred based on where the surveys were being recorded. While the three interviewers all took responses in different locations, it is still likely that not all areas were represented equally. With numerous different entrance points all with different types of commuters, it is hard to know how much of a role the location the surveys were taken had on the results. Another source of bias occurs when we consider the timing of the survey results. The interviewers recorded the results between 6:30 and 7:30 pm, but since not all fans came during that time some bias may have resulted. For example, more drivers may have showed up late to the game compared to those riding public transportation due to traffic.

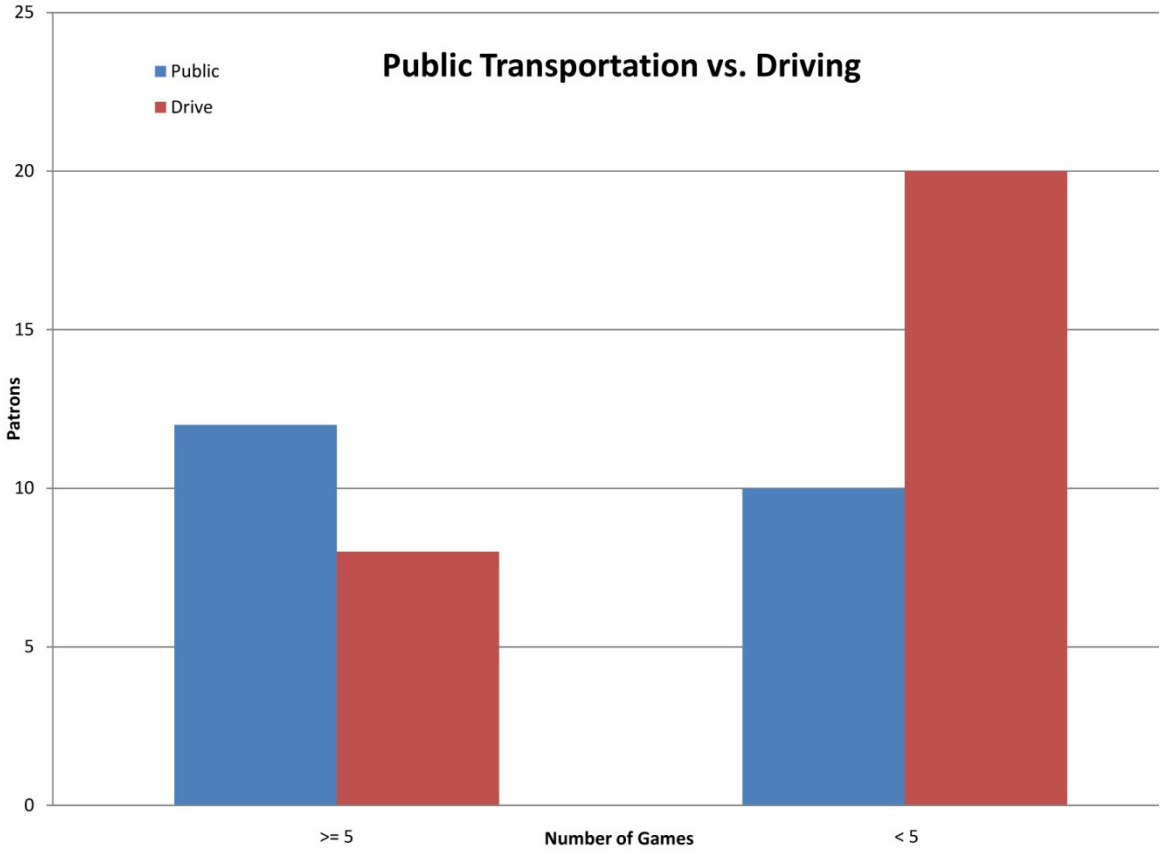
Since using a convenience sample has a high chance of error, and there are other variables that could have affected our results, it is unclear that the results of this survey can be considered undoubtedly valid. To have more valid results, there are several of things we could have done differently. As always, increasing the sampling size would increase the validity of the results. In addition, combining survey results of different games on different days with different start times would give us a more valid idea of how people get to the games. If funding was available for a more comprehensive survey, an online or mail-in survey would be possible thus allowing an alternative to the convenience sample which would provide more accurate results. With all this mentioned, we can now take a look at the survey results to see if there are any conclusions that can be drawn.

Looking at the comprehensive results a few things quickly become apparent. First, it appears that the vast majority of those who attend the game are middle aged men. In addition, it seems that about half (26/50) of those surveyed drive to the game or at least part of the way to

Survey #	Gender	Age	Games Per Year	How do you get to the games, where do you come from, and how long does it usually take?	What do you do after the game? Before?	If you don't take public transportation to the games, why don't you? Would you consider taking it?	If you do take public transportation to the games, what do you like about it? What don't you like?
1	M	20-40 Yrs	1	Drives 30 minutes	Hang out in Downtown	Would consider it	No parking fee's
2	M	20-40 Yrs	10	Takes Max about 30 minutes	Goes home, sometimes to bars	N/A	Cheap, quick, and hassle free
3	M	> 40 Yrs	44 (all)	Max	Goes home	N/A	Unhappy w/ time, cost, and crowds on Max
4	M	20-40 Yrs	5	Max	Goes home	N/A	Convenient and easy
5	M	20-40 Yrs	7	Max/Bus	Goes home	N/A	Don't have a car
6	M	20-40 Yrs	1-2	Max	Visiting area, goes back to hotel	N/A	Avoids traffic
7	F	20-40 Yrs	5	Takes Max about 45 minutes	Goes home	N/A	Parking is too expensive
8	M	20-40 Yrs	3	Drove	Goes home	Driving is faster, Would not consider PT	N/A
9	M	20-40 Yrs	3-4	Drove	Goes home	Leaving the game is too crowded on Max	N/A
10	M	> 40 Yrs	2	Takes Max about 45 minutes	Goes home	N/A	Avoids traffic
11	M	20-40 Yrs	4	Takes Max about 30 minutes	Goes home	N/A	Environmentally friendly, no parking, no gas
12	M	20-40 Yrs	10-15	Take Max or Bike, 2 miles	Goes home	N/A	Don't have a car, annoyed when bike racks are full
13	M	20-40 Yrs	6-7	Drives to Lloyd Center Max	Goes back to school	N/A	Parking is too difficult close to arena
14	F	> 40 Yrs	1	Drives to Lloyd Center Max	Goes home	N/A	Max is free, parking free at Lloyd Center after 6pm
15	M	20-40 Yrs	1	Max/Bus	Goes home	N/A	Parking is expensive, avoids drinking and driving
16	M	20-40 Yrs	10	Drives to Lloyd Center Max, takes 45 minutes	Goes home	N/A	Easier to get in and out
17	M	20-40 Yrs	44 (all)	Takes Max about 45 minutes	Goes home	N/A	Convenient and easy
18	M	20-40 Yrs	10-15	Takes Max about 45 minutes	Goes home	N/A	Parking is too difficult close to arena
19	M	20-40 Yrs	6-7	Takes Max about 30 minutes	Comes from school, goes home	N/A	Easy and close to school, but too crowded
20	M	> 40 Yrs	2-3	Drives toMax from Vancouver	Goes home	N/A	Convenient and easy
21	F	> 40 Yrs	2-3	Drives toMax from Vancouver	Goes home	N/A	Convenient and easy
22	M	20-40 Yrs	1	Drives in carpool	Comes from work, goes home	Would consider if more efficient	N/A
23	F	20-40 Yrs	1	Drove 5 miles	Goes home	Too cold, far, and inconvenient	N/A
24	M	20-40 Yrs	1	Takes Max 2 stops	Goes home	N/A	Environmentally friendly & efficient, too crowded
25	F	> 40 Yrs	20	Carpools with neigbhors from Lake Oswego	Goes home	Max/Bus too far, would take PT if more convenient	N/A
26	M	> 40 Yrs	3-5	Drives from Vancouver	Goes home	Too inconvenient and far	N/A
27	M	> 40 Yrs	15	Drives from Vancouver	Goes home	Too inconvenient and far	N/A
28	M	20-40 Yrs	1	Drives about 20 miles	Goes to dinner before, home after	Would consider public transportation	N/A
29	M	20-40 Yrs	1-2	Drives about 10 miles	Goes home	Would take Max if it was closer	N/A
30	F	20-40 Yrs	1-2	Drives about 10 miles	Goes home	Would take Max if it was closer	N/A
31	M	< 20 Yrs	1	Takes Max about 30 minutes	Comes from school, goes home	N/A	Cheaper than driving
32	M	20-40 Yrs	20	Walks from apartment	Goes home	Only live 2 blocks away	N/A
33	M	20-40 Yrs	10	Drives from Beaverton	Comes from work, goes home	Too inconvenient	N/A
34	M	20-40 Yrs	1	Carpools about 30 minutes	Came from dinner, going home	Would take Max next time	N/A
35	F	20-40 Yrs	30-35	Bikes or Drives	Goes to bars afterward	Would consider public transportation	N/A
36	M	20-40 Yrs	4	Drives to Lloyd Center Max	Goes home	N/A	Don't like the homeless, too crowded
37	M	20-40 Yrs	1	Drove	Comes from work, goes home	Drove to work and want to go straight home after	N/A
38	M	20-40 Yrs	1	Drives to Max from Hillsboro	Comes from work, goes home	Easier to drive, would consider PT to avoid parking	
39	M	20-40 Yrs	1	Takes Max from downtown	Comes from work, goes home	N/A	Very convenient
40	M	20-40 Yrs	2-3	Drove	Goes home	Too inconvenient and takes too long	N/A
41	M	20-40 Yrs	6-7	Takes Max from close by	Comes from school, back to school	N/A	Close and convenient, but too crowded
42	F	20-40 Yrs	1	Takes Max from downtown	Comes from school, goes home	N/A	Convenient and easy
43	M	20-40 Yrs	5	Drove	Comes from work, goes home	Too inconvenient and far	N/A
44	M	20-40 Yrs	1	Max	Goes home	N/A	Avoids traffic and parking
45	M	20-40 Yrs	3-4	Max/Bus	Goes home	N/A	Very convenient and easy
46	M	20-40 Yrs	10	Takes Max about 30 minutes	Goes home	N/A	Cheap and convenient
47	M	> 40 Yrs	1	Drove	Comes from work, goes home	Too inconvenient and crowded	N/A
48	M	20-40 Yrs	2-3	Drives to Lloyd Center Max	Goes home	N/A	Parking is too difficult close to arena
49	F	20-40 Yrs	1	Drove	Comes from work, goes home	Too far	N/A
50	M	20-40 Yrs	5-6	Takes Max about 30 minutes	Goes home	N/A	Convenient and easy

the game. Of the 50 survey responses, only 4 people said they do anything other than go home after the games. Furthermore, for those who do not take public transportation, most would consider it if it were offered closer to them, was more convenient, faster, or less crowded. For those who do take public transportation, what they like is the convenience, price, time, and environmental factors that public transportation offers them.

Still, more can be drawn from the survey. One interesting thing becomes apparent when you compare the number of games a fan attends versus the type of transportation they use. The graph below shows that a correlation exists here. The majority of the people who attend five or more games annually take public transportation, whereas the majority of people who go to less than five games a year drive. This is a interesting bit information, which leads me to believe that public transportation is used more by fans who regularly go the games. This makes sense, because it is likely that a good number of those who attend less than five games may be visiting or unfamiliar with the public transportation system.



[1] www.basketball-reference.com
[2] www.custominsight.com

Bibliography

- Fink, Arlene. How to Conduct Surveys: A Step-by-Step Guide. 3rd ed. London: Sage Publications Ltd., 2006.

- Weisberg, Herbert F., Krosnick, Jon A., and Bowen, Bruce D. An Introduction to Survey Research, Polling, and Data Analysis. 3rd ed. London: Sage Publications Ltd., 1996.

- Fowler, Floyd J. Survey Research Methods. 3rd ed. London: Sage Publications Ltd., 2002.

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- CustomInsight.com, 29 Nov. 2008, http://www.custominsight.com